DOCUMENT RESUME

ED 392 901 CE 071 010

TITLE	Results, Postsecondary Survey of Vocational Standards One through Three.
INSTITUTION	Colorado State Community Coll. and Occupational Education System, Denver.
PUB DATE	12 Feb 96
NOTE	9p.; For the secondary results, see CE 071 009.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Basic Skills; *Career Education; Community Colleges; *Evaluation Methods; Job Skills; Outcomes of Education; Postsecondary Education; Program Evaluation; Skill Development; *State Programs; State Standards; *Student Evaluation; *Technical Education; Two Year Colleges; Vocational Education
IDENTIFIERS	*Carl D Perkins Voc and Appl Techn Educ Act 1990; *Colorado

ABSTRACT

A survey was conducted of Colorado postsecondary career and technical programs in 1995 to gauge how the state has responded to mandates of the Carl Perkins Vocational and Applied Technology Act of 1990. Results were reported for the first three of nine standards developed by a statewide committee in 1992. The three standards require postsecondary programs to demonstrate student achievement in career and technical programs in the following areas: (1) basic and applied academic skills; (2) general occupational skills; and (3) specific occupational skills. Information was gathered through a survey questionnaire mailed to each postsecondary provider, with a follow-up, resulting in returns from 477 programs (91 percent). In the area of standard one, the survey results showed that programs use both commercial instruments (52%) and locally developed instruments (34%) to measure attainment in this area. Fewer than one-quarter of the programs had results available to show either gain scores or other data for standard one. For standard two, programs use a variety of methods to assess general occupational skills, with most programs using more than one method of assessment. The most frequently occurring method is tests, followed by checklists, "other," portfolios, and skills profiles. Nearly 19 percent of postsecondary programs indicate that they use pre- and posttests to assess general occupational skills whereas the remainder use other methods. About 38 percent of the programs were able to document student general occupational skills attainment. For standard three, programs use a variety of methods to assess specific occupational skills. The most frequent method is locally-developed assessments, followed by successful completion of the program, certification examinations, commercial instruments, portfolios, and "other." Nearly 22 percent of postsecondary programs indicate that they use pre- and posttests to assess specific occupational skills whereas the remainder use other methods. About 44 percent of the programs had results available to document student specific occupational skills attainment. (KC)

Colorado
Community College &
Occupational Education System

1391 North Speer Boulevard, Suite 600
Denver, Colorado 80204-2554
(303) 620-4000
FAX [303] 825-4295

Printed on recycled stock

ED 392 901

TO: Postsecondary Vocational Educators and Other Interested Persons

FROM: Rick Voorhees

RE: **RESULTS, POSTSECONDARY SURVEY OF VOCATIONAL STANDARDS ONE THROUGH THREE**

DATE: February 12, 1996

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R Voorhees

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This reports the results of the survey conducted in 1995 of all CCCOES approved postsecondary career and technical programs in Colorado. The intent of the survey was to gauge how Colorado has responded to mandates under the Carl Perkins Vocational and Applied Technology Act of 1990. These requirements made it necessary to create and carry out a statewide system of standards and measures. This report deals with the first three of nine standards developed by a statewide committee in 1992.

Designed to allow flexibility at the local level, Colorado Standards One through Three require postsecondary programs to demonstrate student achievement in career and technical programs. They include 1) basic and applied academic skills, 2) general occupational skills, and 3) specific occupational skills. No statewide profile has been available prior to the results reported here.

The survey questionnaire was mailed to each postsecondary provider in May 1995. A follow-up mailing to non-respondents was mailed in August 1995. CCCOES staff was involved in personally contacting non-respondents. By November 1995, 477 programs had returned questionnaires, representing 90.7% of all postsecondary career and technical programs in Colorado.

The pages immediately following are intended to provide highlights from this survey. The last section of this report contains more survey detail in spreadsheet form.

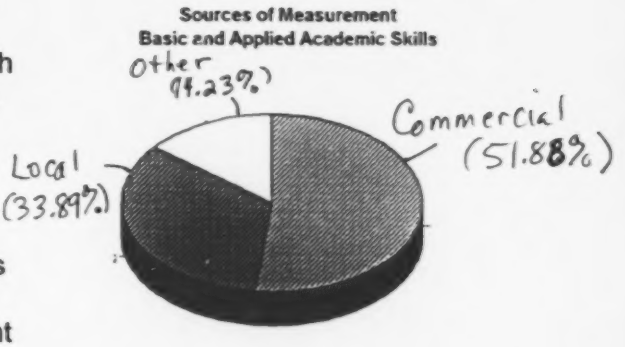
CE 071 010

BEST COPY AVAILABLE
EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

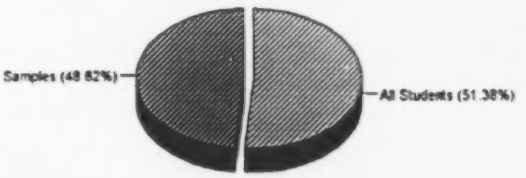
How have institutions responded to Standard One?

Standard One deals with demonstrating student gains in basic and applied academic skills. This standard deals with how well programs integrate basic skills within the career and technical curriculum.

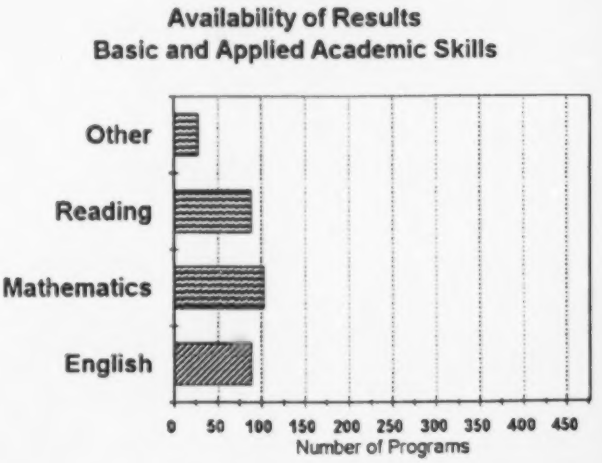
Programs use both commercial (52%) and locally-developed (34%) instruments or assessments to measure student attainment in this area. About 14 percent of programs report they use "other" sources of measurement to determine gains in basic and applied academic skills, a finding that is puzzling given that these programs did not specify alternative methods.



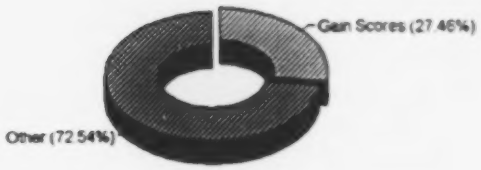
Programs also were asked whether they measured basic and applied academic skills of all students or samples of students. Responses suggest that postsecondary programs are almost evenly split in choice of measurement technique.



According to this survey, less than one-quarter of postsecondary programs have results, either gain scores or other data, to report for Standard One. Results were most frequently available for mathematics, followed by English, and reading. About 30 programs reported the availability of results in areas "other" than traditional basic skills.



Gain Scores for Same Students
Basic and Applied Academic Skills

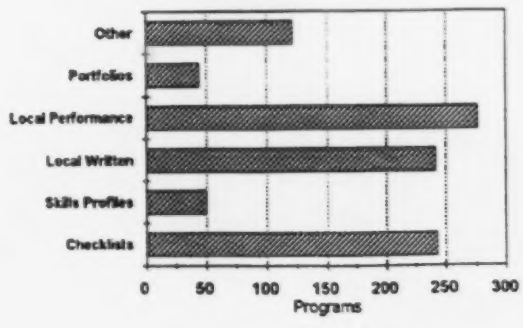


There are several techniques for demonstrating gain in basic and applied academic skills. These include obtaining data from program entrants and comparing these data to program completers. Alternatively, some programs test the same students at entrance and at exit to produce gain scores. About 28 percent of Colorado postsecondary career and technical programs test basic skills functioning of the same students or a sample of the same students at entrance and at exit. The remainder of programs report that they compare data in order to *approximate* gains.

How have institutions responded to Standard Two?

Standard Two deals with demonstrating student gains in general occupational skills. General occupational skills are those skills needed for success in any workplace, no matter what career is chosen.

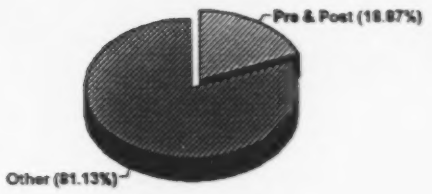
Sources of Measurement
General Occupational Skills



Programs use a variety of methods to assess general occupational skills. Programs frequently use multiple methods of assessment. The most frequently occurring method is tests, followed by checklists, "other," portfolios, and skills profiles. The category "other" may include demonstrations or other forms of rating devices.

Nearly 19 percent of postsecondary programs indicate that they use pre- and post-tests to assess general occupational skills while the remainder use other methods. Unlike basic and applied academic skills (Standard One), this standard does not require that students demonstrate a *gain*. Nonetheless, many postsecondary programs suggest those gain scores for general occupational skills are in use.

Pre- and Post-testing
General Occupational Skills



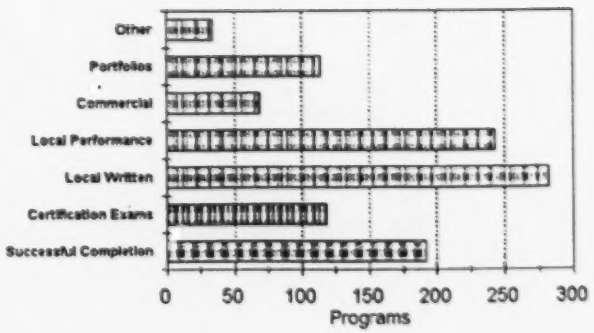
Programs were asked to specify whether results were available to document student general occupational skills attainment. Almost 38 percent of the programs indicate availability of results. Such results are required for program approvals granted after July 1, 1995.

Availability of Results
General Occupational Skills

How have institutions responded to Standard Three?

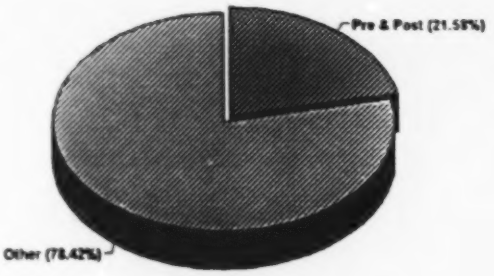
Programs use a variety of methods to assess specific occupational skills. The most frequently occurring method is locally developed assessments (both written and performance), followed by successful completion (of the program), certification examinations, commercial instruments, portfolios, and "other."

Sources of Measurement
Specific Occupational Skills



Nearly 22 percent of postsecondary programs indicate that they use pre- and post-tests to assess specific occupational skills while the remainder use other methods. Unlike basic and applied academic skills (Standard One), neither general or specific occupational skills standards require that students show a gain. Nonetheless, many postsecondary programs suggest that they produce gain scores for general and specific occupational skills.

Pre- and Post-testing
Specific Occupational Skills



Availability of Results
Specific Occupational Skills

Programs were asked to specify whether results were available to document student specific occupational skills attainment. Almost 44 percent of the programs responding indicated availability of results. Such results in this area are required for program approvals granted after July 1, 1995.

Standard One--Basic and Applied Academic Skills

Sources of Measurement for Basic and Applied Academic Skills

% of total	n	
		Commercially available assessments
14%	66	American College Testing (ACT)
13%	64	American College Testing (ACT)/Work Keys
12%	58	ASSET (ACT)
22%	105	California Achievement Test (CAT)
0%	1	Comprehensive/California Test of Basic Skills (CTBS)
0%	1	CAP Mathematics Skills Test
0%	1	College Assessment of Academic Proficiency (CAAP)
0%	2	College Basic Academic Subjects Examination (College BASE)
0%	1	Scholastic Achievement Test (SAT)
17%	82	Test of Adult Basic Education (TABE)
4%	20	Vocational Materials Laboratory, Academic Skills Portion
		Locally developed assessments
24%	113	Checklist of basic and applied academic skills
19%	91	Test of basic and applied academic skills
12%	58	Student portfolio demonstrating basic skills proficiency
23%	110	*Other Sources of Measurement*

Measurement Strategies for Basic and Applied Academic Skills

% of total	n	
		Average of measurement scores
42%	199	All students at program entry
29%	137	All students at program exit
28%	134	A sample of students at program entry
18%	85	A sample of students at program exit
		Average change or gain in measurement scores
21%	98	All students at program entry and exit
21%	99	Samples of students at program entry and exit
25%	117	*Other measurement strategies*

Availability of Results for Basic and Applied Academic Skills

% of total	n	
		Results for program completers
9%	41	Achieving English scores of [n] or better
9%	42	Achieving mathematics scores of [n] or better
7%	35	Achieving reading scores of [n] or better
1%	7	Achieving [other academic area] scores of [n] or better
9%	42	Other results for program completers
		Results for program enrollees (not all testing of completers)
10%	48	Achieving English scores of [n] or better
13%	61	Achieving mathematics scores of [n] or better
11%	54	Achieving reading scores of [n] or better
4%	20	Achieving [other academic area] scores of [n] or better
26%	126	Other results for program enrollees

Standard Two--General Occupational Skills

Sources of Measurement for General Occupational Skills

% of total	n	
		Competency checklists for each student
49%	233	Locally-developed
2%	10	Standardized
10%	50	*General occupational skills profiles from a commercial vendor*
		Locally-developed tests/assessments
51%	242	Written
58%	276	Performance
9%	44	*Student portfolios*
26%	122	*Other sources of measurement*

Measurement Strategies for General Occupational Skills

% of total	n	
		Average of general occupational skills measurement scores
7%	35	All students at program entry
40%	190	All students at program exit
9%	43	A sample of students at program entry
11%	53	A sample of students at program exit
		Average change or gain in general occupational measurement scores
18%	87	All students at program entry and exit
1%	3	Samples of students at program entry and exit
30%	145	*Other general occupational skills measurement strategies*

Average Results for General Occupational Skills

Avg.	
	Results for program completers
94.9	% achieving [84.2]% of general occupational skills
	Results for program enrollees (no exit testing of completers)
98.7	% achieving [70.0]% of general occupational skills

Colorado Postsecondary Vocational Standards, Survey Results

Standard Three--Specific Occupational Skills

Sources of Measurement for Specific Occupational Skills

% of total	n	
25%	118	*Certification or Licensure Examinations*
		Competency checklists for each student
41%	194	Locally-developed
1%	7	Standardized
		Locally developed tests/assessments
59%	282	Written
51%	243	Performance
		Commercially-available assessments
12%	55	Written
3%	14	Performance
24%	114	*Student portfolios*
40%	192	*Successful completion of vocational program*
7%	34	*Other specific occupational skills measurement*

Measurement Strategies for Specific Occupational Skills

% of total	n	
		Average of general occupational skills measurement scores
16%	78	All students at program entry
44%	208	All students at program exit
9%	43	A sample of students at program entry
10%	49	A sample of students at program exit
		Analysis of gain/loss on general occupational measurement scores
18%	84	All students at program entry and exit
4%	20	Samples of students at program entry and exit
28%	135	*Other specific occupational skills measurement strategies*

Average Results for Specific Occupational Skills

Avg.	
	Results for program completers
97.3	% achieving [81.8]% of general occupational skills
89.6	% achieving [n] score on certification/licensure examinations
	Results for program enrollees (not exit testing of completers)
98.6	% achieving [78.3]% of general occupational skills

NOTE; Percentages may not sum to 100% because of multiple survey responses

srvstnd2.wb1/psesum

BEST COPY AVAILABLE